

Series Name: Star Pro Series
Model Number: CSS36CD(O)(29S)/ASH36SG32(29L)

Air Handler Heat Pump System	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit Qty:
Reference:	Unit Designation (Model #):



INDOOR SPECIFICATION	
Indoor Air Flow (High/Low) (CFM)	1110/520
Indoor Noise Level (High/Low) (dBA)	50/42.5
Dimension (W×D×H)	inch 21-1/32×21-1/32×49-7/32
	mm 534×534×1245
Package (W×D×H)	inch 24-13/32×26-37/64×50-13/64
	mm 620×675×1275
Net/Gross Weight	lbs 137/151
	kg 62/68.5

OUTDOOR SPECIFICATION	
Compressor Type	TWIN-ROTARY
Compressor Model	KTM240D57UMT
Refrigerant	R32
Refrigerant Oil Charge(mL)	670
Refrigerant Oil	VG74
Outdoor Air Flow (Max) (CFM)	2650.0
Outdoor Noise Level (dBA)	56
Dimension (W×D×H)	inch 37-63/64×31-57/64×15-3/4
	mm 965×810×400
Package (W×D×H)	inch 42-1/8×34-41/64×20-43/64
	mm 1070×880×525
Net/Gross Weight	lbs 132/140
	kg 60/63.5

EFFICIENCY			
Cooling		Heating	
SEER2	17.0	HSPF2	8.4
EER2	10.4	COP	3.45

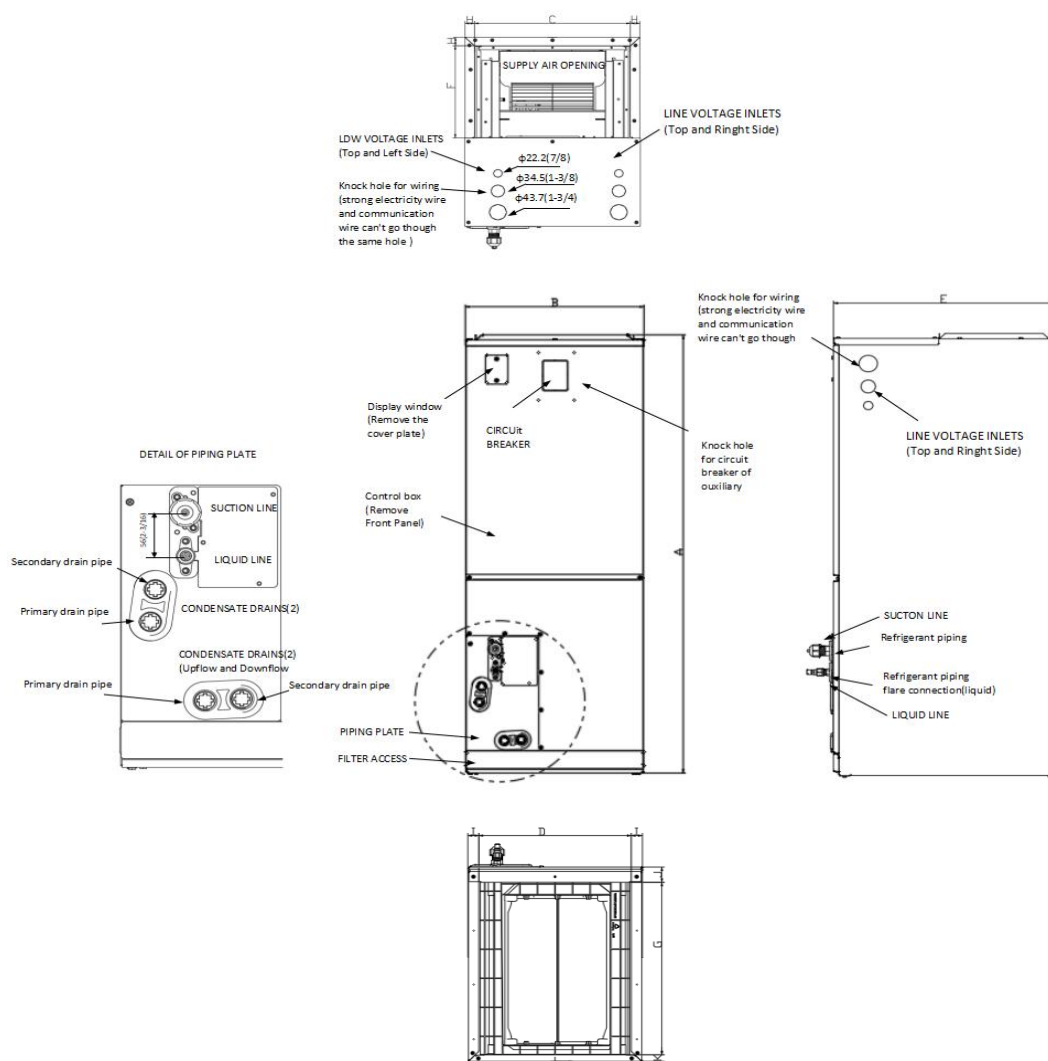
PERFORMANCE of Cooling	
Cooling (Btu/hr)	
Rated Capacity	36000
Min/Max Capacity	8300~38900
Standard Operating Range(°F/°C)	5~131(-15~55)
Rated Cooling Conditions: Indoor: 80°F DB/67°F WB Outdoor: 95°F DB/75°F WB	

PERFORMANCE of Heating	
Heating (Btu/hr)	
1. @ 47°F Rated	36000
2. @ 47°F Min/Max Capacity	6700~41300
3. @ 17°F Rated	22600
4. @ 5°F Rated: Capacity	27000
Standard Operating Range(°F/°C)	-4~75(-20~24)
1. Rated Heating Conditions: Indoor: 70°F DB/60°F WB Outdoor: 47°F DB/43°F WB	
2. Rated Heating Conditions: Indoor: 70°F DB/60°F WB Outdoor: 17°F DB/15°F WB	
3. Heating Conditions, Compressor Operating at Max. Frequency Indoor: 70°F DB/60°F WB Outdoor: 5°F DB/5°F WB	

ELECTRICAL	
Indoor Power Supply	208/230V,60Hz,1Ph
Indoor MCA 115V/(208/230V)	5
Indoor MOP	6
Outdoor Power Supply	208/230V,60Hz,1Ph
Outdoor MCA	25
Outdoor MOP	30
Communication Wiring	AWG 25×3 Shielded
Compressor RLA	9.45
Outdoor Fan Motor RLA	2.5
Outdoor Fan Motor W	150
Indoor Fan Motor RLA	3.6
Indoor Fan Motor W	375
System Power Input @ Cooling (W)	3462(710 ~ 4500)
System Power Input @ Heating (W)	3050(460 ~ 3550)
MCA: Min. circuit amps (A)	MOCP: Max. over current protection (A)
RLA: Rated load amps (A)	W: Fan motor rated output (W)

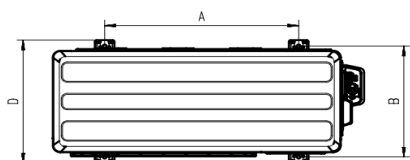
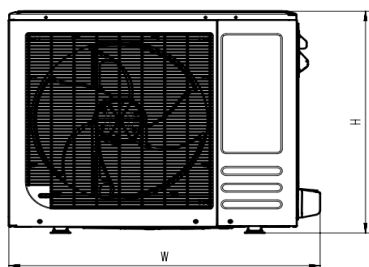
PIPING	
Throttle type(Indoor)	Piston
Throttle type(Outdoor)	Capillary
Liquid Size	9.52mm(3/8in)
Gas Size	19mm(3/4in)
Max. Piping Length(ft/m)	246(75)
Max. Height Difference(ft/m)	98.4(30)
Max. Pre-charged Length(ft/m)	24.6(7.5)
Refrigerant Pre-charged Amount(oz/kg)	84.66(2.4)
Additional Charge of Refrigerant((oz/ft)/(g/m))	0.52(48)
Connection Method	Flared

Indoor Unit Dimension



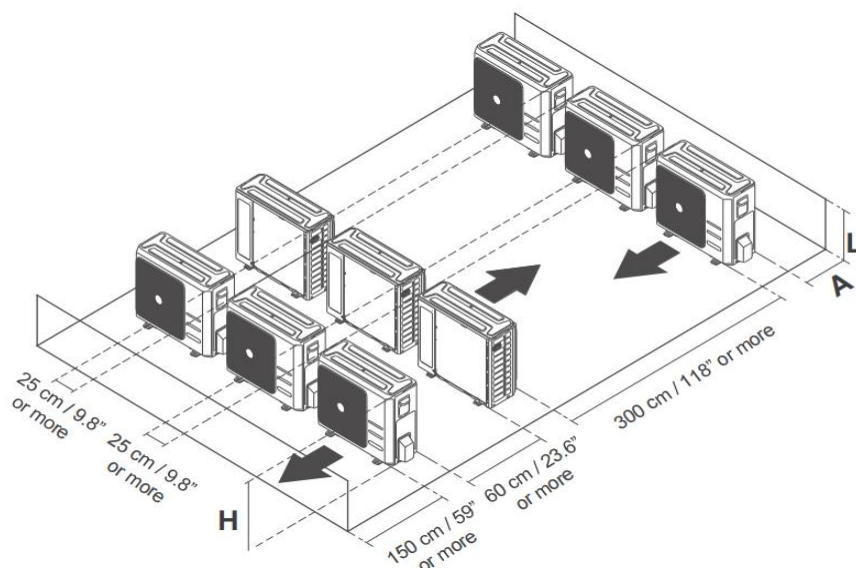
Dimensions		Model	18K/24K		30K/36K		48K/60K	
			inch	mm	inch	mm	inch	mm
A	Model Height		45-3/4	1162	49-49/64	1264	53-47/64	1365
B	Model width		17-41/64	448	21-9/64	537	24-39/64	625
C	Supply Air Opening width		15-5/8	397	19-9/64	486	22-19/32	574
D	Return Air Opening Width		15-25/64	391	18-47/64	476	22-23/64	568
E	Model Depth		21-7/64	536	21-7/64	536	21-7/64	536
F	Supply Air Opening Depth		10-9/32	261	10-9/32	261	10-9/32	261
G	Return Air Opening Depth		18-23/32	475.5	18-23/32	475.5	18-23/32	475.5
H	Supply Air Opening Clearance		15/16	24	15/16	24	15/16	24
I	Return Air Opening Side Clearance		1-1/8	28.5	1-1/8	28.5	1-1/8	28.5
J	Return Air Opening Front Clearance		1-21/32	42	1-21/32	42	1-21/32	42
K	Return Air Opening Back Clearance		45/64	18	45/64	18	45/64	18

Outdoor Unit Dimension

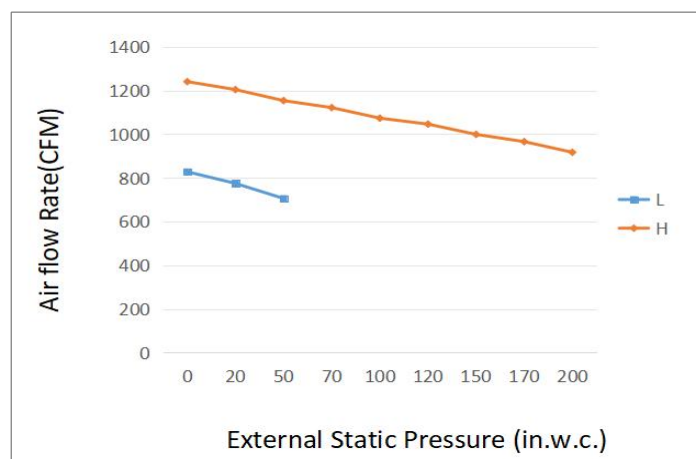


Dimensions \ Model		18K/24K		30K/36K/48K/60K	
		inch	mm	inch	mm
W	Model width	915	36-1/32	965	37-63/64
H	Model height	650	25-19/32	810	31-57/64
A	Distance between left and right foot bolts	605	23-13/16	635	25
B	Distance between front and rear foot bolts	357	14-1/16	405	15-15/16
D	Model depth	392	15-7/16	448	17-41/64

Installation Instruction For Outdoor Unit



Fan Performance For Indoor Unit



Features

- High efficiency and energy-saving, SEER2 up to 18.4
- Multi-position installation: horizontal(left or right), vertical(up or down)
- ECM fan motor with constant torque technology
- External static pressure up to 0.80 In.W.G
- 1 inch R4.2 fiberglass free insulation reduces condensation and boosts efficiency(optional)
- Optional Auxiliary heat kit up to 20kW
- Easy Maintenance
- Multiple control options available:
 - Wired controller with built-in WiFi
 - Third-Party 24V Thermostat
- Adaptive Control System
- Crankcase heater equipped as standard

ComfortStar®

Air Conditioning & Heating Products

Performance Capacity Ratings

COOLING PERFORMANCE DATA

OD_Model	ID_Model	Furnace	Brand	ARIREF	ID_Type	Stage	Est_Air_Flow	ACHP	IsHSVTC												
CSS36CD(O)	ASH36SG32		ComfortStar		A	High	980	H													
OUTDOOR	IWB(°F)	59					63					67					71				
DB	IDB (°F)	72	74	76	78	80	72	74	76	78	80	72	74	76	78	80	72	74	76	78	80
85	TC ¹	32.36	32.45	32.55	32.65	32.75	34.44	34.54	34.64	34.75	34.85	36.62	36.73	36.84	36.95	37.57	38.91	39.03	39.14	39.26	39.38
	Sensible ²	27.41	29.87	32.34	32.90	32.90	22.17	24.64	27.10	29.57	32.05	16.86	19.32	21.79	24.26	26.73	11.47	13.93	16.40	18.87	21.34
	kW	3.19	3.20	3.21	3.21	3.22	3.23	3.23	3.24	3.25	3.25	3.26	3.26	3.27	3.28	3.28	3.29	3.30	3.30	3.31	3.32
90	TC ¹	31.72	31.82	31.91	32.01	32.10	33.76	33.86	33.96	34.07	34.17	35.90	36.01	36.12	36.23	36.83	38.15	38.26	38.38	38.49	38.61
	Sensible ²	26.96	29.43	31.90	32.00	32.00	21.76	24.23	26.70	29.17	31.64	16.42	18.89	21.36	23.83	26.30	11.04	13.50	15.97	18.43	20.90
	kW	3.26	3.27	3.27	3.28	3.29	3.29	3.30	3.30	3.31	3.32	3.32	3.33	3.34	3.34	3.35	3.36	3.37	3.37	3.38	3.39
95	TC ¹	31.10	31.19	31.29	31.38	31.47	33.10	33.20	33.30	33.40	33.50	35.20	35.31	35.41	35.52	36.11	37.40	37.51	37.62	37.74	37.85
	Sensible ²	26.53	28.99	31.10	31.10	31.10	21.31	23.77	26.24	28.71	31.19	16.00	18.47	20.93	23.40	25.88	10.63	13.11	15.58	18.04	20.52
	kW	3.33	3.33	3.34	3.35	3.35	3.36	3.37	3.37	3.38	3.39	3.39	3.40	3.41	3.41	3.42	3.43	3.43	3.44	3.45	3.45
100	TC ¹	30.10	30.19	30.28	30.37	30.46	32.10	32.20	32.29	32.39	32.49	34.20	34.30	34.41	34.51	34.61	36.30	36.41	36.52	36.63	36.74
	Sensible ²	26.04	28.51	30.10	30.10	30.10	20.85	23.32	25.79	28.26	30.73	15.58	18.05	20.52	22.99	25.46	10.22	12.68	15.15	17.61	20.08
	kW	3.14	3.14	3.15	3.15	3.15	3.15	3.15	3.16	3.16	3.16	3.17	3.17	3.18	3.18	3.18	3.18	3.18	3.19	3.19	3.19
105	TC ¹	29.10	29.19	29.27	29.36	29.45	31.10	31.19	31.29	31.38	31.47	33.10	33.20	33.30	33.40	33.50	35.20	35.31	35.41	35.52	35.62
	Sensible ²	25.56	28.03	29.10	29.10	29.10	20.40	22.87	25.34	27.81	30.28	15.12	17.59	20.06	22.53	25.00	9.79	12.25	14.72	17.19	19.66
	kW	3.10	3.10	3.11	3.11	3.11	3.12	3.12	3.12	3.13	3.13	3.13	3.13	3.14	3.14	3.14	3.15	3.15	3.15	3.16	3.16
115	TC ¹	27.00	27.08	27.16	27.24	27.33	28.90	28.99	29.07	29.16	29.25	30.80	30.89	30.99	31.08	31.17	32.80	32.90	33.00	33.10	33.20
	Sensible ²	24.56	27.00	27.00	27.00	27.00	19.42	21.89	24.36	26.83	28.90	14.17	16.64	19.11	21.58	24.05	8.86	11.33	13.80	16.27	18.74
	kW	3.03	3.03	3.04	3.04	3.04	3.05	3.05	3.05	3.06	3.06	3.06	3.07	3.07	3.07	3.07	3.08	3.08	3.08	3.09	3.09

HEATING PERFORMANCE DATA

Model	Heating		Outdoor conditions (DB)										
	Indoor Conditions DB		5°F -15°C	10°F -12.2°C	17°F -8.3°C	20°F -6.7°C	25°F -3.9°C	32°F 0°C	35°F 1.7°C	40°F 4.4°C	47°F 8.3°C	50°F 10°C	57°F 13.9°C
ASH36SG32 CSS36CD(O) (208-230V)	60°F (15.6°C)	TC	27.04	29.37	31.69	32.83	33.98	35.13	36.27	37.42	38.57	39.72	40.87
		Input	3.66	3.56	3.44	3.30	3.19	3.02	2.91	2.90	2.86	3.02	3.08
	65°F (18.3°C)	TC	26.25	28.51	30.77	31.88	32.99	34.10	35.22	36.33	37.45	38.56	39.68
		Input	3.77	3.67	3.55	3.40	3.29	3.11	3.01	2.99	2.95	3.12	3.18
	70°F (21.1°C)	TC	25.47	27.68	30.12	30.95	32.03	33.11	34.19	35.27	36.59	37.44	38.52
		Input	3.89	3.78	3.66	3.51	3.39	3.21	3.10	3.08	3.04	3.21	3.28
	75°F (23.9°C)	TC	24.73	26.85	28.97	30.02	31.07	32.12	33.16	34.21	35.27	36.32	37.36
		Input	4.01	3.89	3.77	3.62	3.49	3.31	3.19	3.17	3.13	3.31	3.38